

# CITY COUNCIL REPORT



MEETING DATE: 10/03/2006    ITEM NO. 15    GOAL: Public Safety

**SUBJECT**                      Review status of the City-sponsored Loop 101 Photo Enforcement Demonstration Program.

- REQUEST**
1. Review status of the Loop 101 Photo Enforcement Demonstration Program and identify next steps for Council consideration;
  2. Authorize City staff to request an extension of the existing right of way use permit from the Arizona Department of Transportation (ADOT) through January 23, 2007, to allow for use of the program's in-pavement sensors to collect post-demonstration program speed data.

**BACKGROUND**                      The City Council on October 25, 2005, approved Scottsdale's nine-month test program for photographic speed enforcement on the 7.8-mile Loop 101 Freeway segment within Scottsdale. This section of the freeway had seen an increase in accidents between 2002 and 2004, Scottsdale citizens had contacted the City with their concerns about freeway speeds, and both Scottsdale and the Arizona Department of Public Safety responded by periodically increasing patrols on the freeway. When the complaints persisted, the City approached the state about photo enforcement.

Scottsdale obtained a right-of-way permit from the Arizona Department of Transportation to place speed enforcement cameras at six locations – three on each side – along this portion of the Loop 101. To remind drivers to operate within the speed limit, signs were installed warning that speed enforcement cameras were in use. The City provided a 45-day public information campaign to alert motorists about the test program.

The program began on January 22, 2006. Written warnings were sent to 16,257 violators for the first month of the test program. Starting February 22, 2006, violators began receiving citations for operating at speeds of 76 mph and higher.

A Technical Evaluation Committee has been established, with membership including various City departments, ADOT and DPS representatives, and participants from the Governor's Office of Highway Safety, Federal Highway Administration, Maricopa Association of Governments, Arizona AAA, and the Insurance Institute for Highway Safety. The committee has met several times to review the types of data that will be available and the specific questions that the analysis will address. The City and ADOT also have contracted with an independent investigator, Dr. Simon Washington of the Arizona State University

Action Taken \_\_\_\_\_

Civil Engineering Program, to lead the research.

The last day of operation for the test period is October 23. If ADOT approves a permit extension, cameras and signs will be covered on that date, and in-pavement sensors will continue to gather speed and volume data for 90 days, to provide information for the program analysis. Under Scottsdale's contract with Redflex Traffic Systems, the vendor providing the equipment, the City will continue to pay \$2,761 per month per location to maintain the in-pavement sensors and collect additional readings. The total for three months for all six locations is just under \$50,000.

In addition, after the City covers the cameras, citations issued through October 23 will continue to be processed through the City Court. Speeders cited in the final days of the program will receive citations in the mail after the cameras are covered, but this will not affect the validity of the citations.

Because it will require analysis of collision data from the state and incorporate the post-program speed and volume data gathered after cameras are covered, a final report is expected to be complete sometime after January 1, 2007.

#### **ANALYSIS & ASSESSMENT**

The specific goal of the Loop 101 photo enforcement demonstration program is to test and evaluate the effectiveness of photo enforcement technology on the urban freeway system in reducing the number of vehicles that exceed the posted speed limit by 11 mph or more, thereby reducing the number and severity of vehicle collisions.

To determine the program's effectiveness, Dr. Washington will analyze speed and traffic volume data from the City's photo enforcement vendor and crash data obtained from DPS collision reports. Dr. Washington's report will analyze the program's effects on speeds and traffic flow, as well as any potential "spillover" effects on other segments of the Loop 101.

Dr. Washington will prepare a written report and recommendation document. The report will be shared with the Technical Evaluation Committee, and forwarded to the Transportation Commission, City Council and other agencies as appropriate. Dr. Washington's independent review services are under a contract with ADOT, funded through City revenues from the demonstration program. The City has also directly contracted with Dr. Washington to facilitate the Technical Evaluation Committee meetings. The total combined cost of these two contracts is expected to total less than \$75,000, depending on the amount of time required to research and analyze collision reports and other data.

The demonstration program has produced other information valuable to the City. The staff has acquired practical experience in managing a photo enforcement program of this scope, understanding staffing and financial needs and communicating the program to the public.

The program also has provided an initial gauge of public reaction. Surveys on the use of photo enforcement on freeways have been conducted by at least one independent public opinion analyst and by the City. In a February 2006 survey conducted by Arizona State University and KAET/Channel 8, 64 percent of residents supported use of photo enforcement on state highways and freeways. Scottsdale had no involvement in this poll. Its results were similar to a May 2005

survey of Maricopa County residents conducted for the City. In that survey, 62 percent of respondents favored the use of photo enforcement on freeways. A follow-up statewide survey regarding public acceptance of photo enforcement is scheduled in November, and results will be available in December or early January.

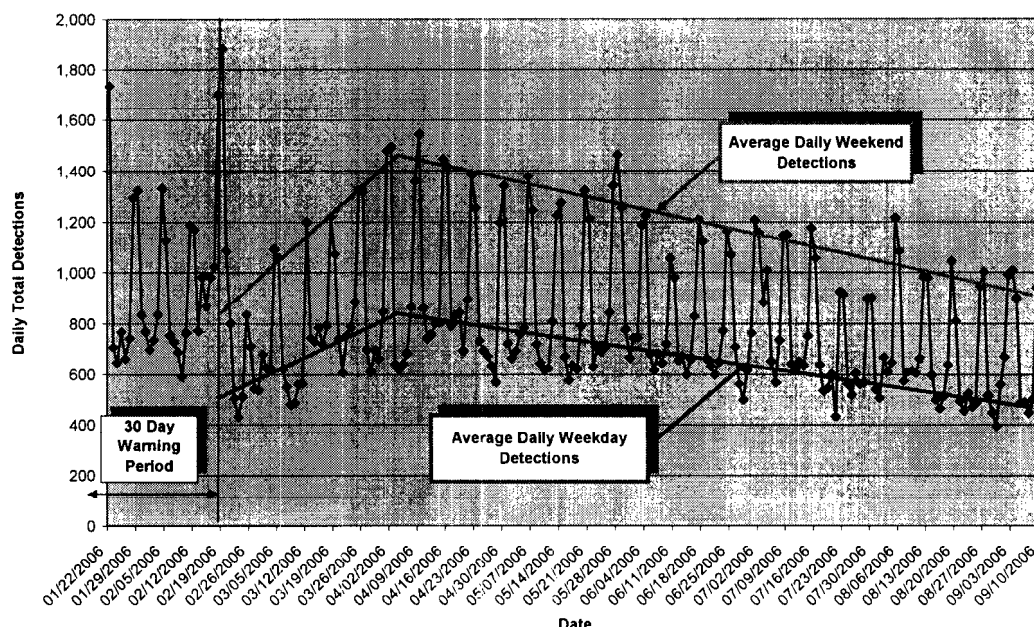
The City also is planning additional public outreach to gauge reaction when the program is completed. A more detailed report on public reaction will be included when the technical study is presented to the Council.

#### *Program Results to Date*

**The program appears to be reducing the number of speeders significantly.** Prior to the implementation of the program, data collected along this section of the Loop 101 showed that over 50 percent of all vehicles during non-peak periods were traveling above 76 mph. Based on the latest estimates of freeway traffic volume, City staff has estimated that less than 1 percent of vehicles have exceeded the 76 mph threshold since citations began.

In addition, the average number of times per day that motorists were detected driving above the 76 mph threshold rose during the early part of the citation period, but has declined steadily since mid-April, as shown in the graph below. This trend holds true for weekdays and weekends. (Since the beginning of the program, the average number of detections on weekends has been higher than on weekdays.) The program recorded its two lowest one-day totals for detections on Aug. 30 and Sept. 14.

LOOP 101 DAILY TOTAL DETECTIONS



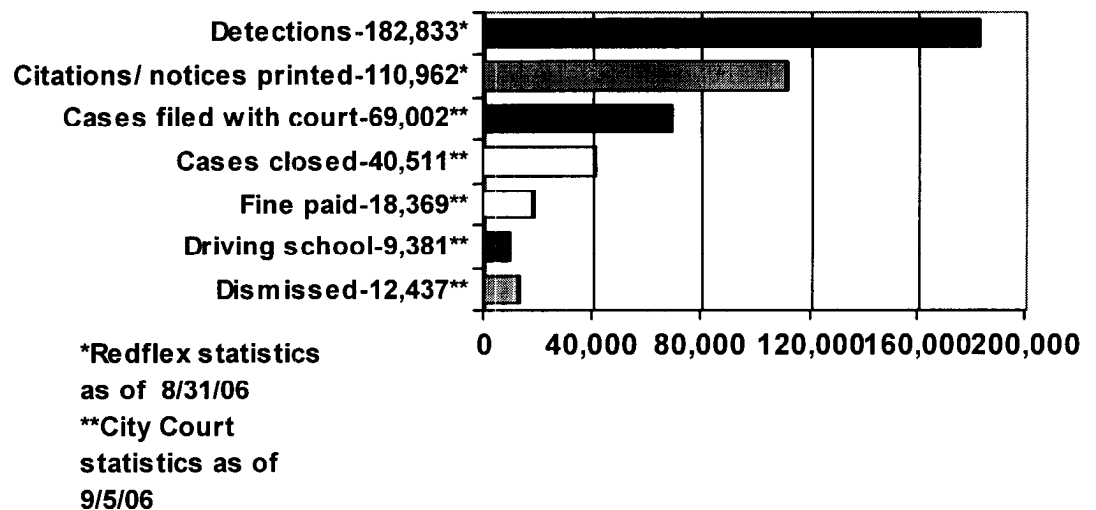
**The proportion of speed detections that result in citations is roughly the same for City streets and the freeway.** As of August 31, about 39 percent of the speeding incidents photographed on the freeway did not result in a citation or a “notice of violation” – a notice sent to the vehicle owner when the driver cannot be identified. By comparison, for the same period, about 39 percent of the

detections by fixed speed cameras on City streets also did not produce citations or notice. The main reasons photos are not usable include license plates obscured by another vehicle or not visible, and drivers who cannot be identified because of obstructions, glare or other factors. More details on these factors are included in an attached summary of key statistics from the August Customer Management Report, as well as the report itself, which provides details for each camera.

The City received its first collision reports from DPS in late summer and is just beginning to sort through that data. Consequently, the City does not yet have an analysis of accidents during the demonstration period and a comparison with prior years. Collision numbers recently became available for 2005, however, and show collisions in the year leading up to the program dropped, after several years of increases. MAG released the new data in July, showing that collisions on Scottsdale's portion of the freeway rose from 209 in 2002 to 262 in 2003 and 403 in 2004, and then declined to 297 in 2005. The number of crashes along the entire length of the Loop 101 declined by 4 percent between 2004 and 2005.

#### *Operating impacts, revenues and expenses to date*

The City has hired four employees on a temporary basis – one at the Police Department, one prosecutor and two in the City Court -- to deal with the increased workload associated with the demonstration project.



The chart above provides a snapshot of the volumes of detections and citations working their way through the process at the beginning of September. A total of 69,002 cases had been filed with the court as of September 5, 2006 (a total of 138 work days since citations began on February 22, 2006). As of that date, 40,511 – or 59 percent -- had been closed. Of the closed cases, 18,369 paid a fine, 9,381 attended driving school and 12,437 were dismissed – most of them on the City's motion after vehicle owners provided identification showing they were not the driver of the vehicle when it was photographed.

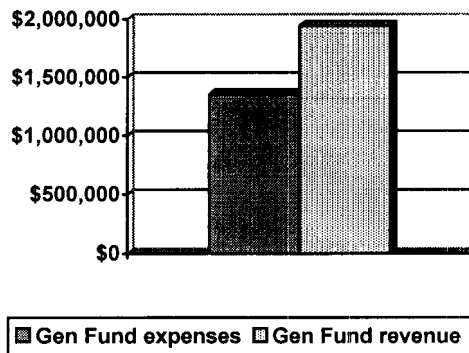
On the financial side, the program operated at a deficit until this summer, when:



revenues began to outpace expenses. As of August 31, direct program expenses to the General Fund totaled about \$1.3 million. Revenue returned to the General Fund totaled about \$1.9 million, nearly \$600,000 more than expenses.

These figures do not include indirect costs for staff members who have spent time on the project, but are not directly involved in the enforcement process.

In addition to the general fund revenues, the program had generated about \$1.4 million in surcharge revenue for the state and \$266,600 for the Scottsdale Court Enhancement Fund.



The City's Financial Services Department is projecting General Fund revenues will exceed direct expenses for the remaining months of the program, and as the City continues to process citations after cameras are shut off on Oct. 23.

#### OTHER CONSIDERATIONS

Scottsdale's current contract with Redflex Traffic Systems for photo enforcement services will expire on June 30, 2007. The staff has already begun discussions about the bid process for the next contract. Staff will be seeking direction from the Council regarding the scope of the program, including the potential for any future freeway applications.

#### OPTIONS & STAFF RECOMMENDATION

Staff recommends that the City Council authorize staff to request an extension of the existing ADOT right-of-way permit through January 23, 2007, for the purpose of continuing to collect speed and volume data while photo enforcement cameras are inactive.

Staff also is requesting any additional direction the Council wishes to provide before returning with a final report after the beginning of 2007. At that time, the staff expects to present at least three options to the Council:

- Take no further action, which would effectively end the program.
- Make a formal request that the state assume direct responsibility for the program and resume operation of the cameras as soon as possible.
- Seek an extension of the ADOT permit to allow the City to resume operation of the program early in 2007.

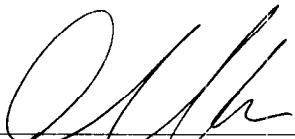
#### RESPONSIBLE DEPT(S)

Police, Court, City Attorney, Transportation, CAPA, City Manager/Intergovernmental, Financial Services

#### STAFF CONTACT(S)

Bruce Kalin: 480-312-7014 / [bkalin@scottsdaleaz.gov](mailto:bkalin@scottsdaleaz.gov)  
Janet Cornell: 480-312-2775 / [jcornell@scottsdaleaz.gov](mailto:jcornell@scottsdaleaz.gov)  
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Bridget Schwartz Manock: 480-312-2423/ [bschwartzmanock@scottsdaleaz.gov](mailto:bschwartzmanock@scottsdaleaz.gov)

**APPROVED BY**

  
\_\_\_\_\_  
Alan G. Rodbell, Chief of Police

9-20-06  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Pat Dodds, Public Affairs Officer

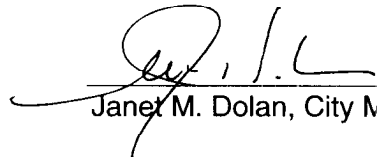
9/20/06  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Mary O'Connor, Transportation General Manager

9/20/06  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Craig Clifford, Financial Services General Manager

9/20/06  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Janet M. Dolan, City Manager

9-20-2006  
\_\_\_\_\_  
Date

**ATTACHMENTS**

1. ADOT Right of Way Use Permit Extension Request through January 23, 2007
2. Summary of Customer Management Report for Jan. 1 through Aug. 31 showing total detections for Loop 101 cameras and street-level cameras, main reasons photos are rejected, and total notices and citations printed
3. Customer Management Report, 1/1/06-8/31/06, showing detections (violations) for each fixed camera location, reasons for rejecting photos and total notices printed
4. Spreadsheet showing daily detections (flashes) on Loop 101 since Jan. 22 at six camera locations
5. Spreadsheet showing top speeds detected at each location and top daily speed

# ARIZONA DEPARTMENT OF TRANSPORTATION

2140 West Hilton Avenue  
Phoenix, Arizona 85009  
602-712-7521

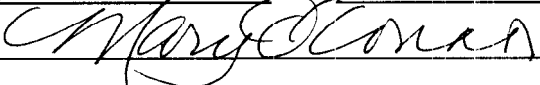
## APPLICATION FOR PERMIT TO USE STATE HIGHWAY RIGHT OF WAY (PRINT OR TYPE)

Application is hereby made to enter in upon and use a portion of the State Highway.

Name of Encroachment Owner City of Scottsdale

Address of Owner 7447 East Indian School Road

City Scottsdale State Arizona Zip 85251

Signature of Owner  Phone 480-312-2334

Name of Applicant Mary O'Connor Legal Relationship to Owner Transportation General Manager

Mailing Address 7447 East Indian School Road

City Scottsdale State Arizona Zip 85251

Phone 480-312-2334

Signature of Applicant \_\_\_\_\_

(Applicant and Owner are responsible for conditions on permit)

City (in or near) Scottsdale PROJECT NO. \_\_\_\_\_

Highway Route No. SR101L Approximately \_\_\_\_\_ Feet \_\_\_\_\_ of Milepost No. 34.51 to 42.35

Purpose Maintenance and operation of in pavement loops and Piazos detectors, roadside poles and ground mounted cabinets to hold electronic units. All cameras will be covered and flash units will be turned off, allowing the in pavement sensors to continue to gather speed and volume data needed for the evaluation of the Photo Enforcement Demonstration Project. All maintenance on roadside equipment will be performed outside of the travel lanes and will be done using short term shoulder closures or behind existing barriers. Large warning signs will be covered and we will request that ADOT remove the "Photo Enforced" signs posted below speed limit signs.

### FOR DEPARTMENT USE ONLY

THIS APPLICATION is approved with the following directions, requirements and specifications indicated on the back of this form. WITH THE ACCEPTANCE OF THIS PERMIT, THE PERMITTEE AGREES TO ALL THE CONDITIONS AS DESCRIBED HEREIN. NO WORK WILL BE ALLOWED TO TAKE PLACE INSIDE THE RIGHT OF WAY WITHOUT A VALID PERMIT ON SITE.

Date \_\_\_\_\_ PERMITS SUPERVISOR \_\_\_\_\_

### PERMIT AND LICENSE

Permit No. \_\_\_\_\_

A permit and license is hereby issued to the foregoing licensee for the purpose contained in the application and upon the expressed condition that every agreement and covenant therein contained is faithfully performed, and said work to be performed in accordance with final approval plans and specifications. Construction is authorized only for the period indicated below.

Dated October 23, 2006

ARIZONA DEPARTMENT OF TRANSPORTATION

Construction to be completed by:

By \_\_\_\_\_

January 23, 2007  
Date

Authorized Signature

FOR AND IN CONSIDERATION of the granting of a permit or license for the purpose set forth herein the Licensee hereby agrees, covenants, and binds said Licensee as follows, to-wit:

1. The State assumes no financial obligation or liability under this Permit in association with the Project work requested by the City and provided herein. The City assumes full responsibility for the design, plans and specifications, reports, the engineering in connection therewith, the construction of the improvements contemplated, cost over-runs and construction claims. The City shall require its contractors to name the State as an additional insured in the contractor's insurance policies. The City shall also require its contractors to name the State as an additional indemnitee in the City contracts with its contractors. It is understood and agreed that any damages arising from entering into or carrying out, in any respect, the terms of this agreement or any modification thereof, shall be solely the liability of the City and that to the extent permitted by law, the City hereby agrees to save, hold harmless and indemnify from loss the State, any of its departments, agencies, officers or employees from any and all cost and/or damage incurred by any of the above and from any other damage to any person or property whatsoever, which is caused by activity, condition, or event arising out of the performance or nonperformance of any provisions of this Agreement by the State, any of its departments, agencies, officers and employees, the City, any of its agents, officers and employees, or any of its independent contractors. Costs incurred by the State, any of its departments, agencies, officers or employees shall include in the event of any action, court costs, and expenses of litigation or reasonable attorneys' fees.
2. That all work done shall be at the sole cost and expense of the Licensee, and shall be done at such time and in such manner as to be least inconvenient to the traveling public, and as directed by the agent of the Licensor. Work must be finished in the time specified on permit.
3. That when the proposed work is completed the Licensee shall repair the roadbed and replace the surfacing material thereon and will leave the said road in as good a condition as it is now, so far as the road is affected by the Licensee.
4. If the subject of the permit or license fails to pass final inspection, the Licensee will remove or replace the same within such time as specified by written notice from the Licensor; or if at any time hereafter, any material used by the Licensee is replacing or reconstructing any part of said highway proves defective, the Licensee will replace the same with the kind and quality of material which the Licensor shall specify.
5. That if the title and possession of any property placed upon the right of way by the Licensee remains in said Licensee, the Licensee shall and will promptly perform all necessary repair work upon written notice from the Licensor, and will not permit or allow any condition to exist which would be a hazard or source of danger to the traveling public.
6. That if at anytime hereafter the right of way, or any portion thereof, occupied and used by the Licensee may be needed or required by the Licensor, any permit or license granted in pursuance of this application, may be revoked by the Licensor and all rights thereunder terminated, and upon sufficient notice, the Licensee shall and will remove all property belonging to said Licensee.
7. That in the event that the work to be done under the authority of the permit or license necessitates the creation of any hazard or source of danger to any person or vehicle using said highway, said Licensee shall and will provide and maintain at all times during the existence of said hazard, sufficient barriers, danger signals, lanterns, detours, and shall and will take such other measures of precaution as the Licensor shall direct.
8. That if the work to be undertaken is of such a nature or character that the Licensor deems it necessary that said work be laid out, or inspected by the Licensor, said Licensee will defray any and all expenses incurred by said Licensor, and herein agrees to reimburse the Licensor, and for that purpose will deposit with the Licensor a sum of money in the amount necessary to cover all cost incurred by the Licensor.
9. All construction to be as per final plans approved with permit.
10. Licensee agrees to advise the state of any change of ownership.
11. In case of the eviction of Licensee by anyone owning or claiming title to or any interest in said premises, or any part thereof, State shall not be liable to Licensee for any damage of any nature whatsoever, or to refund any monies paid hereunder.
12. It is the responsibility of the permittee to investigate the necessity of additional permits or approvals from local governments or agencies, such as towns, cities or counties.

# Summary of Customer Management Report Key Statistics -- Loop 101 and Streets Program, January-August 2006

Total-Loop 101		% of Total		Total-Streets Program		% of Total		Grand Total-101 & Streets & Streets		% of Grand Total - 101 & Streets & Streets	
101		Violations		Program		Violations					
Total detections		182,833	100.0%	24,819	100.0%	207,652	100.0%	100.0%			
Rejected because of uncontrollable factors											
Obstacles											
Driver obstruction/ duckers		20,679	11.3%	2,146	8.6%	22,825	11.0%				
Motorcycle helmets		942	0.5%	177	0.7%	1,119	0.5%				
Plate obstruction		7,734	4.2%	601	2.4%	8,335	4.0%				
Vehicle obstruction		2,785	1.5%	105	0.4%	2,890	1.4%				
Weather											
Sun glare		6,446	3.5%	1,275	5.1%	7,721	3.7%				
Registration Issues											
Can not identify state		1,275	0.7%	187	0.8%	1,462	0.7%				
Out-of-country plate		550	0.3%	77	0.3%	627	0.3%				
Paper plates		10,736	5.9%	1,437	5.8%	12,173	5.9%				
Wrong or no DMV registration		9,586	5.2%	940	3.8%	10,526	5.1%				
		988	0.5%	146	0.6%	1,134	0.5%				
All other uncontrollable factors											
Rejected because of vendor controllable factors		10,150	5.6%	2,610	10.5%	12,760	6.1%				
Total rejected		71,871	39.3%	9,701	39.1%	81,572	39.3%				
Notices/violations printed		110,962	60.7%	15,118	60.9%	126,080	60.7%				

# Customer Management Report (Scottsdale) Fixed Speed Incidents

01-Jan-2006 to 31-Aug-2006

Operator Id: %

	SD-101CA-01	SD-101HA-01	SD-101RA-01	SD-101SC-01	SD-101SHN-01	SD-101SHS-01	SD-FLFL-01	SD-FLFL-03	SD-HAIS-01	SD-HAMC-01	SD-PIPP-01	SD-SCSH-01	SD-SDCA-01	SD-SDFL-01	SD-SDTH-01	SD-SH90-01	TOTAL	
Total Violations	6879	20302	57887	37751	28244	31770	9146	6429	482	1274	639	1092	1278	1159	774	2546	207652	
Less Uncontrollable Factors																		
Obstruction	896	2452	6955	3974	2981	3421	778	669	44	118	52	64	69	45	29	278	22825	
Driver Obstruction/Duckers																		
Motor Cycle Helmet	90	152	162	229	172	137	46	33	6	0	7	8	32	27	18	0	1119	
Plate Obstruction (PD)	263	782	2793	1362	1253	1281	130	154	11	33	15	37	41	39	28	113	8335	
Vehicle Obstruction	89	336	981	442	503	434	14	21	0	3	7	9	28	6	7	10	2890	
Citation Issued manually	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
Driver Unidentifiable	10	30	74	36	22	29	5	8	0	2	1	2	2	0	0	2	223	
Gender Mismatch	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	0	5	
Incorrect/Incomplete DMV	0	1	2	1	0	3	0	2	0	0	0	0	0	0	0	0	9	
Plate Obstruction	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Extended Vehicle	9	26	159	75	31	63	11	27	0	1	2	4	0	2	0	4	414	
Sun Glare	508	1632	1436	296	1925	649	227	485	17	223	45	51	50	31	53	93	7721	
Two Vehicles in Beam	8	7	39	15	21	18	3	5	0	1	0	2	1	1	1	2	124	
Weather/Nature	4	25	124	7	28	16	21	5	5	2	4	0	3	2	1	3	250	
Can Not Identify State	48	161	402	234	228	202	54	52	5	13	0	7	18	13	6	19	1462	
Gender Match	6	7	24	31	7	23	3	1	0	0	3	0	0	1	0	1	107	
Out of Country Plate	24	68	186	101	87	84	38	23	0	4	0	5	1	3	0	3	627	
Paper Plates	451	1314	3250	2185	1673	1863	527	453	19	48	31	48	78	47	51	135	12173	
Wrong or No DMV	326	1006	2924	2006	1639	1685	389	213	18	48	26	41	49	44	24	88	10526	
	2732	7999	19514	10995	10572	9909	2246	2151	125	496	193	278	372	261	218	751	68812	
Sub Total Violations	4147	12303	38373	26756	17672	21861	6900	4278	357	778	446	814	906	898	556	1795	138840	
Less in Progress	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Available For Prosecution	4147	12303	38373	26756	17672	21861	6900	4278	357	778	446	814	906	898	556	1795	138840	
Less Rejects																		
Camera	0	000%	0	000%	0	000%	0	000%	0	000%	0	000%	0	000%	0	000%	2	000%
Databar Unreadable/Incorrect																		
Malfunction	7	000%	0	000%	5	000%	1	000%	1	000%	2	000%	1	000%	1	000%	29	000%
Digital Distortion																		

Face Camera Flash	26 001%	52 000%	77 000%	76 000%	55 000%	103 000%	19 000%	19 000%	19 005%	7 001%	8 002%	7 001%	13 001%	7 001%	17 003%	20 001%	525 000%
Face Camera Focus Blurry	36 001%	92 001%	337 001%	63 000%	94 001%	158 001%	15 000%	35 001%	12 003%	17 002%	16 004%	29 004%	15 002%	6 001%	19 003%	26 001%	970 001%
Face Camera No Flash	10 000%	54 000%	6 000%	142 001%	6 000%	7 000%	55 001%	3 000%	30 008%	1 000%	10 002%	1 000%	3 000%	5 001%	8 001%	8 000%	347 000%
Face Not in Frame	71 002%	172 001%	483 001%	582 002%	327 002%	531 002%	39 001%	668 016%	10 003%	14 002%	13 003%	8 001%	13 001%	11 001%	3 001%	35 002%	2990 002%
Image Missing	2 000%	2 000%	21 000%	12 000%	8 000%	32 000%	11 000%	8 000%	0 000%	0 000%	1 000%	0 000%	0 000%	0 000%	0 000%	5 000%	102 000%
Misc Camera Issue	40 001%	27 000%	498 001%	19 000%	283 002%	558 003%	4 000%	17 000%	5 001%	0 000%	14 003%	2 000%	11 001%	2 000%	1 000%	18 001%	1498 001%
Plate Burn Out	37 001%	192 002%	97 000%	38 000%	181 001%	9 000%	12 000%	36 001%	0 000%	32 004%	6 001%	22 003%	4 000%	2 000%	0 000%	22 001%	680 000%
Plate Not in Frame	31 001%	133 001%	287 001%	198 001%	93 001%	353 002%	177 003%	50 001%	11 003%	5 001%	4 001%	4 000%	26 003%	11 001%	27 005%	44 002%	1454 001%
Plate Radar False Trigger	0 000%	2 000%	12 000%	14 000%	10 000%	11 000%	1 000%	2 000%	0 000%	1 000%	0 000%	0 000%	0 000%	0 000%	0 000%	1 000%	54 000%
Rear Plate Camera Blurry	136 003%	268 002%	520 001%	298 001%	761 004%	318 001%	50 001%	64 001%	13 004%	71 009%	2 000%	6 001%	28 003%	24 003%	18 003%	124 007%	2701 002%
Rear Plate Flash Inappropriate	9 000%	33 000%	33 000%	11 000%	21 000%	20 000%	26 000%	9 000%	2 001%	7 001%	2 000%	1 000%	2 000%	5 001%	4 001%	11 001%	196 000%
Rear Plate No Flash	7 000%	8 000%	41 000%	6 000%	15 000%	51 000%	16 000%	33 001%	3 001%	0 000%	1 000%	1 000%	4 000%	9 001%	2 000%	10 001%	207 000%
Scene Image Blurry	0 000%	0 000%	1 000%	0 000%	1 000%	0 000%	0 000%	0 000%	0 000%	0 000%	0 000%	0 000%	0 000%	0 000%	1 000%	0 000%	4 000%
Scene Image Flash Inappropriate	0 000%	0 000%	1 000%	5 000%	1 000%	2 000%	0 000%	0 000%	0 000%	1 000%	0 000%	0 000%	0 000%	1 000%	0 000%	0 000%	11 000%
Scene Image No Flash	0 000%	2 000%	0 000%	2 000%	0 000%	1 000%	1 000%	2 000%	2 001%	0 000%	7 002%	0 000%	2 000%	9 001%	1 000%	1 000%	30 000%
Vehicle Not in Frame	14 000%	40 000%	160 000%	79 000%	33 000%	163 001%	9 000%	41 001%	3 001%	0 000%	1 000%	0 000%	3 000%	15 002%	1 000%	10 001%	572 000%
Driver Unidentifiable Images poor	1 000%	8 000%	28 000%	1 000%	1 000%	9 000%	0 000%	5 000%	0 000%	0 000%	1 000%	1 000%	1 000%	0 000%	0 000%	0 000%	56 000%
Incorrect Details	2 000%	3 000%	30 000%	23 000%	16 000%	7 000%	4 000%	5 000%	0 000%	5 001%	0 000%	3 000%	1 000%	1 000%	0 000%	0 000%	100 000%
Too Old	2 000%	18 000%	47 000%	43 000%	27 000%	32 000%	22 000%	17 000%	0 000%	1 000%	1 000%	1 000%	0 000%	2 000%	2 000%	6 000%	221 000%
Police Rejects	431 010%	1106 009%	2694 007%	1613 006%	1935 011%	2371 011%	461 007%	1017 024%	111 031%	163 021%	89 020%	86 011%	127 014%	112 012%	102 018%	342 019%	12760
Process Issues	3716 090%	11197	35679	25143	15737	19490 6439 083%	3261 076%	246 066%	615 079%	357 080%	728 089%	779 086%	786 088%	454 082%	1453 081%		126080
Total																	
Notices Printed																	

## Loop 101 Daily Speed Detections Summary

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101-Shea	S/B 101-Shea	DAILY TOTAL	
Warning phase flashes(1/22-2/22)	1,204	3,632	7,608	6,309	5,640	5,776	30,169	
Citation phase flashes (2/22 to date)	6,359	18,152	54,367	33,810	24,491	27,665	164,844	
TOTAL FLASHES (1/22 TO DATE)	7,563	21,784	61,975	40,119	30,131	33,441	195,013	
Total program days (1/22 to date)	240	240	240	240	240	240	240	
Average flashes per day (1/22 to date)	32	91	258	167	126	139	813	
Highest number of flashes on one day	94	224	462	431	439	368	1,881	
Lowest number of flashes on one day	7	24	122	0	0	1	394	
	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101-Shea	S/B 101-Shea	DAILY TOTAL	AVERAGE/ CAMERA
01/22/2006	94	201	410	431	439	158	1,733	289
01/23/2006	38	153	146	148	172	48	705	118
01/24/2006	35	147	151	111	137	66	647	108
01/25/2006	32	67	181	157	168	162	767	128
01/26/2006	29	68	243	52	120	150	662	110
01/27/2006	27	66	201	227	58	164	743	124
01/28/2006	61	123	298	296	234	281	1,293	216
01/29/2006	57	135	293	297	230	309	1,321	220
01/30/2006	21	79	226	174	141	192	833	139
01/31/2006	23	82	192	179	132	161	769	128
02/01/2006	25	72	185	146	126	143	697	116
02/02/2006	21	68	191	184	117	155	736	123
02/03/2006	23	64	239	185	145	178	834	139
02/04/2006	47	147	357	290	216	273	1,330	222
02/05/2006	40	118	280	258	204	227	1,127	188
02/06/2006	27	89	184	145	172	138	755	126
02/07/2006	24	125	151	124	161	142	727	121



# Loop 101 Daily Speed Detections Summary

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101-Shea	S/B 101-Shea	DAILY TOTAL	AVERAGE/ CAMERA
02/08/2006	28	91	160	120	141	147	687	115
02/09/2006	18	82	163	115	98	115	591	99
02/10/2006	22	87	203	176	130	145	763	127
02/11/2006	53	211	289	179	232	222	1,186	198
02/12/2006	52	154	251	214	265	235	1,171	195
02/13/2006	25	86	217	151	124	168	771	129
02/14/2006	44	109	273	156	165	235	982	164
02/15/2006	28	94	177	223	182	164	868	145
02/16/2006	37	118	292	204	173	157	981	164
02/17/2006	43	119	297	248	135	180	1,022	170
02/18/2006	67	221	420	347	298	348	1,701	284
02/19/2006	94	224	439	390	366	368	1,881	314
02/20/2006	41	138	295	210	211	190	1,085	181
02/21/2006	28	94	204	172	148	155	801	134
02/22/2006	17	57	124	106	111	89	504	84
02/23/2006	17	53	122	96	83	59	430	72
02/24/2006	16	71	123	118	94	88	510	85
02/25/2006	28	102	190	166	183	166	835	139
02/26/2006	37	32	148	129	218	146	710	118
02/27/2006	22	67	133	115	105	101	543	91
02/28/2006	18	31	140	136	120	92	537	90
03/01/2006	23	75	204	159	103	115	679	113
03/02/2006	19	76	234	148	80	68	625	104
03/03/2006	28	57	199	152	119	72	627	105
03/04/2006	38	149	326	248	169	161	1,091	182
03/05/2006	51	164	375	257	208	1	1,056	176
03/06/2006	21	83	198	173	118	29	622	104
03/07/2006	21	65	145	150	115	54	550	92
03/08/2006	7	49	174	110	82	57	479	80
03/09/2006	11	47	153	125	120	29	485	81
03/10/2006	23	58	204	134	106	33	558	93
03/11/2006	11	66	200	128	96	62	563	94
03/12/2006	34	104	333	265	277	186	1,199	200
03/13/2006	12	93	246	157	133	103	744	124
03/14/2006	21	93	269	148	108	91	730	122

# Loop 101 Daily Speed Detections Summary

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101-Shea	S/B 101-Shea	DAILY TOTAL	AVERAGE/ CAMERA
03/15/2006	35	73	270	176	127	102	783	131
03/16/2006	26	102	215	133	120	121	717	120
03/17/2006	26	93	267	151	139	118	794	132
03/18/2006	54	133	333	270	234	195	1,219	203
03/19/2006	40	146	308	204	223	151	1,072	179
03/20/2006	30	97	224	143	142	104	740	123
03/21/2006	20	59	221	93	129	84	606	101
03/22/2006	20	91	267	178	99	100	755	126
03/23/2006	17	93	317	144	105	110	786	131
03/24/2006	25	112	365	167	116	100	885	148
03/25/2006	54	147	390	269	240	224	1,321	220
03/26/2006	68	141	398	249	227	233	1,316	219
03/27/2006	18	88	263	143	97	87	696	116
03/28/2006	26	91	175	128	88	102	610	102
03/29/2006	24	50	217	184	122	99	696	116
03/30/2006	24	97	223	147	82	86	659	110
03/31/2006	23	96	309	179	114	125	846	141
04/01/2006	73	144	462	301	253	246	1,479	247
04/02/2006	68	180	416	306	249	274	1,493	249
04/03/2006	20	65	272	163	108	13	641	107
04/04/2006	29	86	195	112	96	103	621	104
04/05/2006	24	48	205	174	108	81	640	107
04/06/2006	23	73	239	126	114	107	682	114
04/07/2006	34	98	309	165	120	138	864	144
04/08/2006	69	96	433	300	225	236	1,359	227
04/09/2006	79	159	449	314	274	268	1,543	257
04/10/2006	22	107	247	206	146	134	862	144
04/11/2006	23	83	263	146	126	101	742	124
04/12/2006	29	81	291	149	101	108	759	127
04/13/2006	29	110	296	155	88	125	803	134
04/14/2006	35	80	236	207	152	92	802	134
04/15/2006	65	136	435	314	268	226	1,444	241
04/16/2006	78	120	401	266	282	267	1,414	236
04/17/2006	20	68	245	179	137	143	792	132
04/18/2006	20	108	294	186	109	116	833	139

# Loop 101 Daily Speed Detections Summary

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale		N/B 101-Shea	S/B 101-Shea	DAILY TOTAL	AVERAGE/ CAMERA
04/19/2006		21	78	306	156	145	136	842	140
04/20/2006		14	75	225	158	110	111	693	116
04/21/2006		30	101	369	139	124	133	896	149
04/22/2006		67	147	391	283	274	221	1,383	231
04/23/2006		68	125	317	275	247	222	1,254	209
04/24/2006		20	83	233	159	108	130	733	122
04/25/2006		20	67	240	122	111	163	693	116
04/26/2006		26	74	175	155	108	133	671	112
04/27/2006		30	76	194	141	105	87	633	106
04/28/2006		19	73	169	127	105	75	568	95
04/29/2006		61	139	337	223	234	203	1,197	200
04/30/2006		68	160	348	295	185	284	1,340	223
05/01/2006		27	89	251	162	63	130	722	120
05/02/2006		23	82	211	135	105	108	664	111
05/03/2006		26	83	217	144	102	120	692	115
05/04/2006		36	76	233	166	113	133	757	126
05/05/2006		29	80	267	166	123	118	783	131
05/06/2006		51	153	408	287	224	253	1,376	229
05/07/2006		54	120	364	258	218	230	1,244	207
05/08/2006		22	72	232	172	103	117	718	120
05/09/2006		26	76	200	152	92	99	645	108
05/10/2006		19	85	200	134	88	93	619	103
05/11/2006		20	63	240	142	68	91	624	104
05/12/2006		32	84	307	174	91	120	808	135
05/13/2006		52	140	409	273	155	196	1,225	204
05/14/2006		62	151	393	255	180	231	1,272	212
05/15/2006		21	61	267	131	92	97	669	112
05/16/2006		17	81	225	102	67	84	576	96
05/17/2006		20	111	220	117	73	94	635	106
05/18/2006		21	80	227	155	61	77	621	104
05/19/2006		20	79	276	171	94	151	791	132
05/20/2006		31	167	448	264	189	223	1,322	220
05/21/2006		52	130	313	281	213	221	1,210	202
05/22/2006		15	52	200	167	115	82	631	105
05/23/2006		11	84	263	168	79	99	704	117

# Loop 101 Daily Speed Detections Summary

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101-Shea	S/B 101-Shea	DAILY TOTAL	AVERAGE/ CAMERA
05/24/2006	11	75	259	144	81	120	690	115
05/25/2006	14	75	257	151	100	110	707	118
05/26/2006	16	72	282	181	134	157	842	140
05/27/2006	71	103	352	314	273	229	1,342	224
05/28/2006	88	133	402	321	252	265	1,461	244
05/29/2006	63	145	340	259	178	268	1,253	209
05/30/2006	34	72	279	153	111	129	778	130
05/31/2006	25	78	237	137	53	135	665	111
06/01/2006	27	91	284	146	51	145	744	124
06/02/2006	29	85	282	118	105	129	748	125
06/03/2006	35	139	388	245	140	240	1,187	198
06/04/2006	52	105	391	289	158	231	1,226	204
06/05/2006	17	66	241	164	77	115	680	113
06/06/2006	23	55	222	122	81	114	617	103
06/07/2006	19	77	279	109	82	116	682	114
06/08/2006	11	70	241	132	80	110	644	107
06/09/2006	16	67	258	182	69	128	720	120
06/10/2006	33	138	393	267	0	225	1,056	176
06/11/2006	33	119	334	250	0	245	981	164
06/12/2006	13	54	205	150	79	154	655	109
06/13/2006	8	55	247	150	83	130	673	112
06/14/2006	12	58	203	137	81	107	598	100
06/15/2006	11	60	192	171	83	143	660	110
06/16/2006	18	68	287	181	118	156	828	138
06/17/2006	33	138	339	292	188	218	1,208	201
06/18/2006	31	114	369	228	165	216	1,123	187
06/19/2006	18	83	215	110	88	147	661	110
06/20/2006	8	57	240	143	69	115	632	105
06/21/2006	9	74	251	136	26	102	598	100
06/22/2006	16	42	299	120	59	114	650	108
06/23/2006	15	86	265	173	79	154	772	129
06/24/2006	59	137	361	206	173	228	1,164	194
06/25/2006	56	138	272	204	191	210	1,071	179
06/26/2006	18	72	238	141	94	145	708	118
06/27/2006	16	57	271	80	72	65	561	94

# Loop 101 Daily Speed Detections Summary

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101-Shea	S/B 101-Shea	DAILY TOTAL	AVERAGE/ CAMERA
06/28/2006	14	51	206	117	70	40	498	83
06/29/2006	31	41	205	128	104	108	617	103
06/30/2006	24	53	321	122	93	151	764	127
07/01/2006	54	116	375	259	211	192	1,207	201
07/02/2006	52	118	320	281	192	193	1,156	193
07/03/2006	38	70	294	242	82	157	883	147
07/04/2006	49	94	293	241	153	178	1,008	168
07/05/2006	31	45	240	143	93	100	652	109
07/06/2006	22	52	207	114	88	85	568	95
07/07/2006	15	73	312	129	75	131	735	123
07/08/2006	55	114	368	225	179	204	1,145	191
07/09/2006	66	123	324	244	196	197	1,150	192
07/10/2006	16	39	247	141	82	115	640	107
07/11/2006	20	48	231	117	77	126	619	103
07/12/2006	15	65	235	134	99	103	651	109
07/13/2006	18	68	214	146	85	105	636	106
07/14/2006	22	51	292	148	104	135	752	125
07/15/2006	38	125	410	211	194	197	1,175	196
07/16/2006	45	111	342	203	162	193	1,056	176
07/17/2006	17	64	239	123	91	104	638	106
07/18/2006	17	57	166	117	86	91	534	89
07/19/2006	26	73	153	98	84	111	545	91
07/20/2006	19	86	222	117	59	98	601	100
07/21/2006	28	55	149	67	57	76	432	72
07/22/2006	54	139	367	0	168	197	925	154
07/23/2006	54	127	349	0	181	205	916	153
07/24/2006	24	60	215	87	81	94	561	94
07/25/2006	13	53	193	104	75	79	517	86
07/26/2006	12	24	200	140	95	134	605	101
07/27/2006	20	41	173	99	110	118	561	94
07/28/2006	34	62	214	63	76	119	568	95
07/29/2006	40	84	253	168	177	178	900	150
07/30/2006	51	110	272	161	139	170	903	151
07/31/2006	17	69	200	91	64	98	539	90
08/01/2006	17	59	176	77	67	110	506	84

# Loop 101 Daily Speed Detections Summary

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101-Shea	S/B 101-Shea	DAILY TOTAL	AVERAGE/ CAMERA
08/02/2006	29	81	246	136	65	111	668	111
08/03/2006	23	70	195	126	75	122	611	102
08/04/2006	28	62	252	144	62	100	648	108
08/05/2006	54	127	386	268	155	224	1,214	202
08/06/2006	65	137	293	194	170	226	1,085	181
08/07/2006	14	79	187	97	85	112	574	96
08/08/2006	17	58	256	99	69	111	610	102
08/09/2006	17	62	226	107	68	134	614	102
08/10/2006	28	55	240	110	73	99	605	101
08/11/2006	21	66	227	144	73	132	663	111
08/12/2006	43	130	291	195	150	173	982	164
08/13/2006	56	124	274	191	152	183	980	163
08/14/2006	17	69	213	115	92	91	597	100
08/15/2006	19	65	186	104	57	67	498	83
08/16/2006	22	50	149	85	70	88	464	77
08/17/2006	26	62	181	91	64	90	514	86
08/18/2006	17	82	240	136	60	103	638	106
08/19/2006	52	130	336	193	134	199	1,044	174
08/20/2006	52	148	247	143	154	66	810	135
08/21/2006	16	66	188	97	53	74	494	82
08/22/2006	22	47	176	75	63	70	453	76
08/23/2006	17	57	202	99	53	94	522	87
08/24/2006	16	49	189	92	55	68	469	78
08/25/2006	25	66	176	101	57	61	486	81
08/26/2006	44	93	318	193	136	162	946	158
08/27/2006	42	118	327	241	116	167	1001	167
08/28/2006	14	45	198	112	56	91	516	86
08/29/2006	25	39	148	113	44	78	447	75
08/30/2006	18	42	124	104	46	60	394	66
08/31/2006	10	58	239	101	36	114	558	93
09/01/2006	25	62	277	144	58	103	669	112
09/02/2006	44	129	323	150	158	184	988	165
09/03/2006	76	151	316	132	174	157	1,006	168
09/04/2006	64	142	265	120	143	166	900	150
09/05/2006	18	88	150	79	60	92	487	81

# Loop 101 Daily Speed Detections Summary

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101-Shea	S/B 101-Shea	DAILY TOTAL	AVERAGE/ CAMERA
09/06/2006	17	64	196	80	49	83	489	82
09/07/2006	17	61	164	84	46	75	447	75
09/08/2006	21	71	188	113	56	53	502	84
09/09/2006	48	103	321	160	122	186	940	157
09/10/2006	48	113	324	218	125	195	1,023	171
09/11/2006	17	56	179	121	62	99	534	89
09/12/2006	16	61	152	83	70	90	472	79
09/13/2006	24	103	164	64	56	81	492	82
09/14/2006	16	56	142	72	49	61	396	66
09/15/2006	20	56	180	103	75	95	529	88
09/16/2006	59	113	340	222	150	158	1,042	174
09/17/2006	55	108	280	222	137	189	991	165
09/18/2006	23	60	179	118	64	78	522	87
09/19/2006							0	0
09/20/2006							0	0
09/21/2006							0	0
09/22/2006							0	0
09/23/2006							0	0
09/24/2006							0	0
09/25/2006							0	0
09/26/2006							0	0
<del>09/27/2006</del>							<del>0</del>	<del>0</del>
09/28/2006							0	0
09/29/2006							0	0
09/30/2006							0	0
10/01/2006							0	0
10/02/2006							0	0
10/03/2006							0	0
10/04/2006							0	0
10/05/2006							0	0
10/06/2006							0	0
10/07/2006							0	0
10/08/2006							0	0
10/09/2006							0	0
10/10/2006							0	0

## Top Speeds Detected on Loop 101

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101- Shea	S/B 101- Shea	Top speed/ day/all cameras
<b>Program days</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>
<b># of days top speed = or &gt;100</b>	<b>19</b>	<b>31</b>	<b>52</b>	<b>44</b>	<b>30</b>	<b>32</b>	<b>142</b>
<b># of days top speed = or &gt;90</b>	<b>73</b>	<b>121</b>	<b>177</b>	<b>157</b>	<b>109</b>	<b>130</b>	<b>237</b>
<b>1/22</b>	100	114	96	95	100	103	<b>114</b>
<b>1/23</b>	122	89	90	97	83	97	<b>122</b>
<b>1/24</b>	97	90	93	100	98	89	<b>100</b>
<b>1/25</b>	85	90	97	92	101	94	<b>101</b>
<b>1/26</b>	85	96	95	95	98	111	<b>111</b>
<b>1/27</b>	82	85	91	107	90	87	<b>107</b>
<b>1/28</b>	95	102	94	110	120	97	<b>120</b>
<b>1/29</b>	92	96	113	99	96	98	<b>113</b>
<b>1/30</b>	102	85	113	99	88	96	<b>113</b>
<b>1/31</b>	81	86	96	92	93	89	<b>96</b>
<b>2/1</b>	84	89	88	91	92	85	<b>92</b>
<b>2/2</b>	101	112	91	92	98	95	<b>112</b>
<b>2/3</b>	85	92	114	88	86	96	<b>114</b>
<b>2/4</b>	112	98	101	92	95	102	<b>112</b>
<b>2/5</b>	86	94	108	121	92	94	<b>121</b>
<b>2/6</b>	85	88	93	91	110	98	<b>110</b>
<b>2/7</b>	95	88	94	95	100	87	<b>100</b>
<b>2/8</b>	84	87	87	94	83	91	<b>94</b>
<b>2/9</b>	79	102	93	92	97	117	<b>117</b>
<b>2/10</b>	95	95	106	96	97	94	<b>106</b>
<b>2/11</b>	89	108	109	91	90	100	<b>109</b>
<b>2/12</b>	85	92	94	97	94	130	<b>130</b>
<b>2/13</b>	82	91	86	88	94	102	<b>102</b>
<b>2/14</b>	106	87	89	131	90	94	<b>131</b>
<b>2/15</b>	90	110	98	94	101	92	<b>110</b>
<b>2/16</b>	90	87	97	93	105	91	<b>105</b>
<b>2/17</b>	94	93	110	111	93	91	<b>111</b>
<b>2/18</b>	90	102	116	112	91	98	<b>116</b>
<b>2/19</b>	101	100	101	111	113	109	<b>113</b>
<b>2/20</b>	85	92	90	96	91	93	<b>96</b>
<b>2/21</b>	99	97	106	104	88	101	<b>106 Warnings</b>
<b>2/22</b>	99	86	97	92	84	85	<b>99 Citations</b>
<b>2/23</b>	87	87	90	86	89	87	<b>90</b>
<b>2/24</b>	85	89	86	97	108	86	<b>108</b>
<b>2/25</b>	86	96	91	92	93	86	<b>96</b>
<b>2/26</b>	86	92	96	90	111	110	<b>111</b>
<b>2/27</b>	79	94	92	108	88	86	<b>108</b>



## Top Speeds Detected on Loop 101

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101- Shea	S/B 101- Shea	Top speed/ day/all cameras
2/28	95	84	100	101	84	90	101
3/1	105	101	95	121	94	100	121
3/2	90	98	98	86	94	95	98
3/3	84	90	90	86	87	88	90
3/4	89	88	107	101	90	89	107
3/5	84	97	115	98	102	78	115
3/6	83	94	101	94	88	85	101
3/7	106	84	104	96	103	98	106
3/8	82	88	93	88	92	82	93
3/9	79	91	98	93	86	86	98
3/10	81	87	94	96	89	93	96
3/11	90	85	88	92	91	95	95
3/12	91	89	98	90	95	93	98
3/13	90	93	96	85	94	86	96
3/14	87	88	88	103	106	84	106
3/15	88	94	95	91	93	86	95
3/16	81	85	100	86	90	116	116
3/17	94	89	92	98	110	92	110
3/18	92	97	94	101	95	97	101
3/19	89	88	128	99	93	103	128
3/20	85	89	100	94	88	94	100
3/21	84	88	99	99	86	90	99
3/22	91	95	89	111	102	87	111
3/23	87	89	92	92	90	87	92
3/24	92	96	102	94	92	128	128 31 Days
3/25	94	93	90	97	101	90	101
3/26	104	101	117	100	87	87	117
3/27	80	84	102	86	91	91	102
3/28	83	89	93	95	82	91	95
3/29	94	105	86	98	86	92	105
3/30	90	92	96	88	102	90	102
3/31	86	86	93	99	96	88	99
4/1	106	95	98	94	100	118	118
4/2	94	109	108	96	110	99	110
4/3	86	96	143	91	98	138	143
4/4	90	95	92	87	84	91	95
4/5	106	115	97	99	109	95	115
4/6	88	83	91	91	90	91	91
4/7	128	91	92	90	105	101	128
4/8	106	99	91	92	102	92	106
4/9	88	90	94	109	89	94	109
4/10	90	93	92	94	92	94	94
4/11	88	91	87	88	88	87	91
4/12	83	123	91	87	85	93	123
4/13	88	89	95	88	89	95	95
4/14	91	89	108	108	85	93	108
4/15	96	93	90	100	88	134	134
4/16	86	92	105	89	95	105	105

## Top Speeds Detected on Loop 101

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101- Shea	S/B 101- Shea	Top speed/ day/all cameras
4/17	84	94	96	95	85	90	96
4/18	87	108	93	96	87	87	108
4/19	91	92	102	91	96	90	102
4/20	82	92	94	101	91	89	101
4/21	85	92	105	109	92	94	109
4/22	92	93	94	100	91	98	100
4/23	86	91	93	92	102	91	102
4/24	81	92	92	90	98	85	98 62 Days
4/25	83	87	97	89	88	89	97
4/26	81	86	87	99	86	101	101
4/27	85	89	101	101	92	95	101
4/28	81	73	95	88	104	83	104
4/29	84	107	97	107	90	97	107
4/30	97	87	108	104	86	98	108
5/1	82	119	92	90	95	93	119
5/2	83	91	87	89	85	86	91
5/3	83	98	87	88	90	95	98
5/4	86	90	89	115	88	95	115
5/5	80	90	94	98	92	94	98
5/6	93	93	100	90	96	95	100
5/7	83	105	101	101	105	112	112
5/8	116	94	89	96	103	100	116
5/9	85	92	94	88	86	87	94
5/10	85	101	95	106	84	94	106
5/11	90	110	101	105	100	101	110
5/12	91	96	97	99	83	89	99
5/13	89	88	90	90	87	91	91
5/14	94	94	110	96	93	103	110
5/15	90	86	99	94	91	99	99
5/16	87	86	88	111	87	88	111
5/17	84	96	86	85	84	89	96
5/18	85	92	94	85	98	91	98
5/19	81	83	95	87	94	90	95
5/20	90	100	95	88	95	88	100
5/21	98	86	102	128	90	147	147
5/22	81	103	93	96	90	89	103
5/23	84	86	93	107	85	86	107
5/24	83	94	92	89	87	84	94
5/25	82	86	93	103	87	96	103 93 Days
5/26	83	88	90	92	103	90	103
5/27	91	127	104	101	94	102	127
5/28	93	104	90	94	88	114	114
5/29	91	97	121	88	89	99	121
5/30	86	89	86	97	89	94	97
5/31	87	95	90	104	84	92	104
6/1	83	88	100	90	84	90	100
6/2	85	89	90	91	90	85	91
6/3	84	92	94	95	94	97	97

## Top Speeds Detected on Loop 101

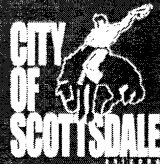
	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101- Shea	S/B 101- Shea	Top speed/ day/all cameras
6/4	87	97	98	93	86	121	121
6/5	85	83	100	98	91	88	100
6/6	85	100	88	100	88	85	100
6/7	84	86	103	86	93	86	103
6/8	80	93	90	92	84	88	93
6/9	80	84	88	95	93	93	95
6/10	82	88	95	93	0	89	95
6/11	87	118	94	102	0	94	118
6/12	98	89	102	90	85	87	102
6/13	78	87	102	111	82	94	111
6/14	80	83	91	89	88	83	91
6/15	82	85	98	89	89	98	98
6/16	82	96	87	93	86	90	96
6/17	84	102	93	92	93	91	102
6/18	108	99	94	88	100	97	108
6/19	84	96	93	92	93	98	98
6/20	82	88	94	87	92	85	94
6/21	83	85	91	91	89	86	91
6/22	106	96	101	89	83	90	106
6/23	81	113	121	92	87	122	122
6/24	85	96	95	95	90	86	96
6/25	98	88	97	95	99	90	99 124 Days
6/26	103	86	89	84	94	91	103
6/27	80	87	91	88	84	87	91
6/28	82	97	90	97	85	94	97
6/29	85	84	89	91	99	90	99
6/30	84	89	102	93	90	91	102
7/1	99	91	114	92	90	92	114
7/2	94	91	95	105	85	89	105
7/3	100	89	90	93	88	87	100
7/4	84	90	102	93	101	98	102
7/5	86	83	89	94	90	88	94
7/6	87	82	89	92	81	90	92
7/7	81	88	93	90	85	95	95
7/8	85	86	89	89	91	95	95
7/9	87	90	99	95	93	100	100
7/10	80	98	104	101	91	102	104
7/11	81	86	88	88	83	83	88
7/12	81	91	89	105	83	89	105
7/13	84	87	91	84	84	91	91
7/14	91	83	90	92	91	93	93
7/15	90	88	89	88	89	90	90
7/16	90	99	90	95	88	112	112
7/17	79	82	101	111	84	90	111
7/18	82	86	94	97	104	86	104
7/19	88	84	88	87	85	87	88
7/20	88	88	106	87	87	92	106
7/21	83	95	92	87	84	83	95

## Top Speeds Detected on Loop 101

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101- Shea	S/B 101- Shea	Top speed/ day/all cameras
7/22	87	89	93	0	84	94	94
7/23	94	87	99	0	88	101	101
7/24	99	94	85	87	87	89	99
7/25	91	92	90	87	87	86	92
7/26	83	80	91	89	86	89	91 155 Days
7/27	83	89	90	89	87	99	99
7/28	83	88	89	88	90	87	90
7/29	84	102	89	92	90	88	102
7/30	90	87	93	116	87	88	116
7/31	80	85	111	86	90	86	111
8/1	81	85	102	94	87	105	105
8/2	84	85	90	93	102	89	102
8/3	89	94	90	89	89	83	94
8/4	99	89	96	93	88	92	99
8/5	95	98	92	92	89	100	100
8/6	94	89	92	105	104	91	105
8/7	91	89	95	98	91	87	98
8/8	82	82	97	96	87	91	97
8/9	86	93	89	92	100	84	100
8/10	81	83	90	105	84	87	105
8/11	83	87	100	96	84	86	100
8/12	85	108	89	92	88	97	108
8/13	87	89	108	93	113	106	113
8/14	89	110	92	91	90	84	110
8/15	86	88	96	95	92	83	96
8/16	81	89	93	87	90	89	93
8/17	91	84	96	88	89	103	103
8/18	91	99	97	88	89	96	99
8/19	87	85	103	98	99	88	103
8/20	94	97	96	90	95	90	97
8/21	84	86	86	90	86	94	94
8/22	80	93	94	111	86	84	111
8/23	89	96	97	93	88	86	97
8/24	82	85	94	95	92	87	95
8/25	92	102	85	90	87	84	102
8/26	93	89	99	88	87	90	99 186 Days
8/27	94	97	93	91	87	89	97
8/28	80	88	86	113	82	84	113
8/29	82	86	92	85	84	93	93
8/30	89	103	102	90	82	94	103
8/31	86	89	100	95	84	93	100
9/1	90	90	96	87	87	91	96
9/2	87	92	91	87	88	95	95
9/3	96	94	93	88	95	90	96
9/4	86	93	92	90	89	95	95
9/5	124	84	88	89	123	88	124
9/6	84	90	99	91	83	89	99
9/7	91	94	94	89	86	83	94

## Top Speeds Detected on Loop 101

	N/B 101- Cactus	W/B 101- Hayden	S/B 101- Raintree	E/B 101- Scottsdale	N/B 101- Shea	S/B 101- Shea	Top speed/ day/all cameras
9/8	92	93	98	90	98	84	98
9/9	87	87	92	89	98	99	99
9/10	90	97	103	111	91	95	111
9/11	92	83	102	90	85	97	102
9/12	82	101	97	96	87	88	101
9/13	86	88	92	87	92	89	92
9/14	82	94	94	87	97	88	97
9/15	80	89	90	89	86	87	90
9/16	95	96	89	92	100	90	100
9/17	101	94	104	88	93	94	104
9/18	82	84	85	88	88	87	88
9/19							0
9/20							0
9/21							0
9/22							0
9/23							0
9/24							0
9/25							0
9/26							0 217 Days
9/27							0
9/28							0
9/29							0
9/30							0
10/1							0
10/2							0
10/3							0
10/4							0
10/5							0
10/6							0
10/7							0
10/8							0
10/9							0
10/10							0
10/11							0
10/12							0
10/13							0
10/14							0
10/15							0
10/16							0
10/17							0
10/18							0
10/19							0
10/20							0
10/21							0
10/22							0
10/23							0



## **Loop 101 Photo Enforcement City Council Update**

October 3, 2006



## **Goal of Program**



- **Goal is to test whether the use of fixed, bi-directional photo enforcement technology on this segment of the urban freeway system will provide a tool to aid in reducing speeds and crashes**
- **City of Scottsdale demonstration program only, meant to supplement enforcement already provided by DPS**
- **Nine-month demonstration began on January 22, 2006 with 30-day warning notice period. Issuance of actual citations began on February 22, 2006. Demonstration program ends October 23, 2006. Technical Evaluation Committee includes ADOT, DPS, FHWA, MAG, AAA of Arizona, Insurance Institute for Highway Safety, County Attorney and Courts, and various city departments.**

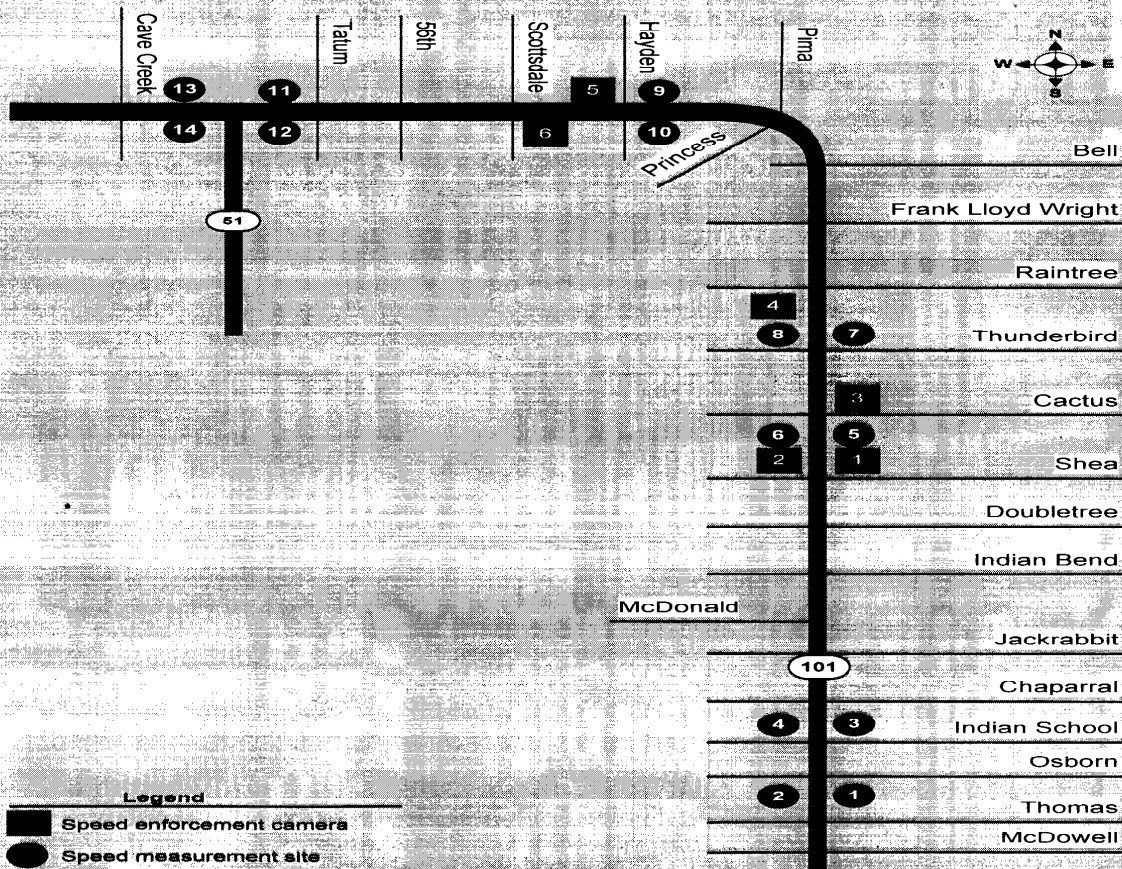
# Demonstration Program Schedule



- **10/25/05: Council approval received**
- **10/26/05: ROW Use Permit submitted, began collecting "before" data, initiated Technical Evaluation Committee, initiated equipment installation**
- **11/15/05: 45-day awareness campaign began**
- **1/22/06: 30-day warning notice period began**
- **2/22/06: Enforcement period began**
- **Continual: Periodic review, meetings of Technical Evaluation Committee throughout program**
- **10/23/06: Enforcement period concludes**
- **1/16/07(tentative): Final Technical Evaluation Report to Council**



# Current Camera/Data Sites



# Evaluation Objectives



- **Safety impacts: impact on frequency and severity of reported crashes**
- **Operational Impacts (inside and outside demonstration project) :**
  - **impact on speeding behavior**
  - **impact on congestion and flow characteristics**
- **Public acceptance of project**
- **Fiscal impacts**

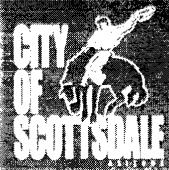
## **Evaluation Timeline (Assumes Data Available)**



- **Oct. 1<sup>st</sup>, 2006: ADOT contract with ASU to conduct evaluation**
- **Nov. 15<sup>th</sup>, 2006: ASU team to obtain complete electronic crash records for all 101 crashes from 1/1/2006 to 10/30/2006**
- **Jan 1<sup>st</sup>, 2007: ASU to deliver summary analysis results of speeding and crash impacts to Technical Evaluation Committee**
- **Jan 16<sup>th</sup>, 2007: ASU to present report to City Council**
- **Winter/Spring 2007: ASU team to address remaining analysis concerns/questions**



# Financial Status

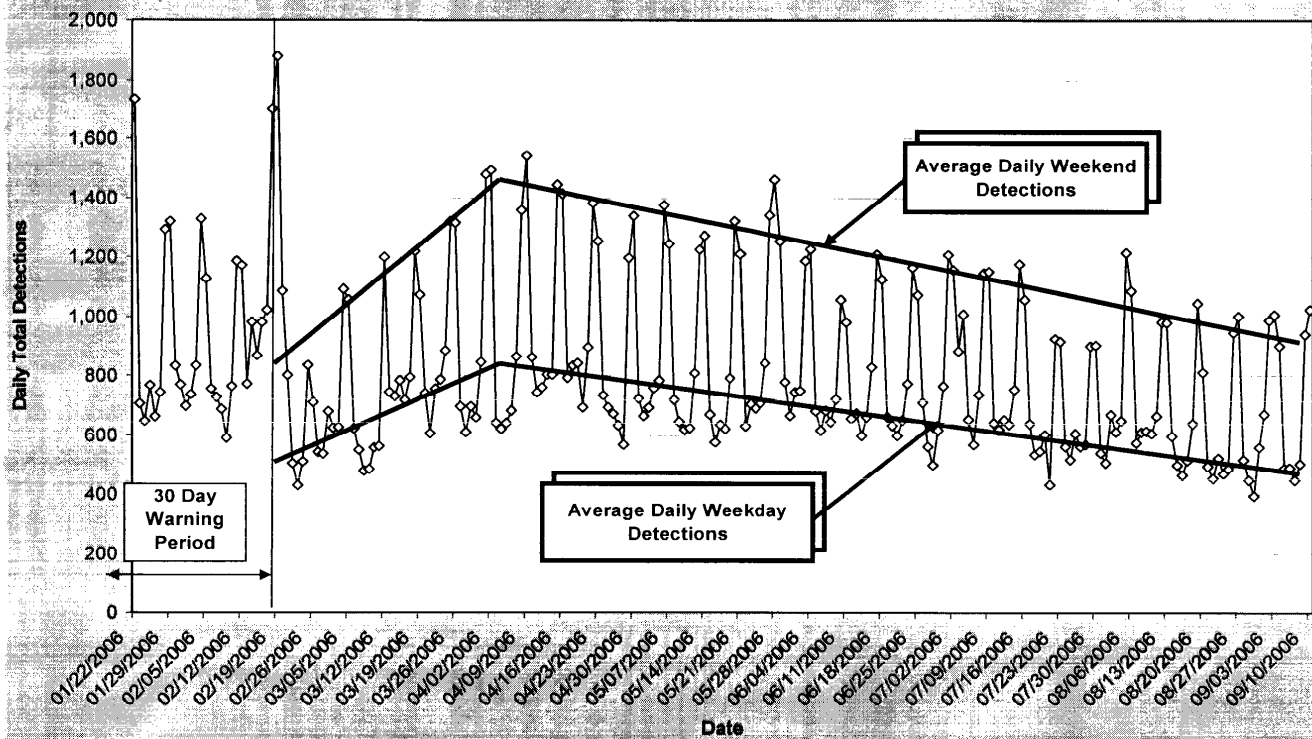


- Program intended to be revenue neutral
- Revenue returned to the General Fund as of Aug. 31, 2006, totaled about \$1.9 million, approximately \$600,000 more than expenses; does not reflect all expenses including staff time not charged, evaluation, any outstanding invoices
- City receives 47.4% of all fine revenue; balance goes to State and mandated court surcharge (total to date is \$1.4 million)
- Financial Services will do complete financial evaluation within 90 days from end of demonstration period

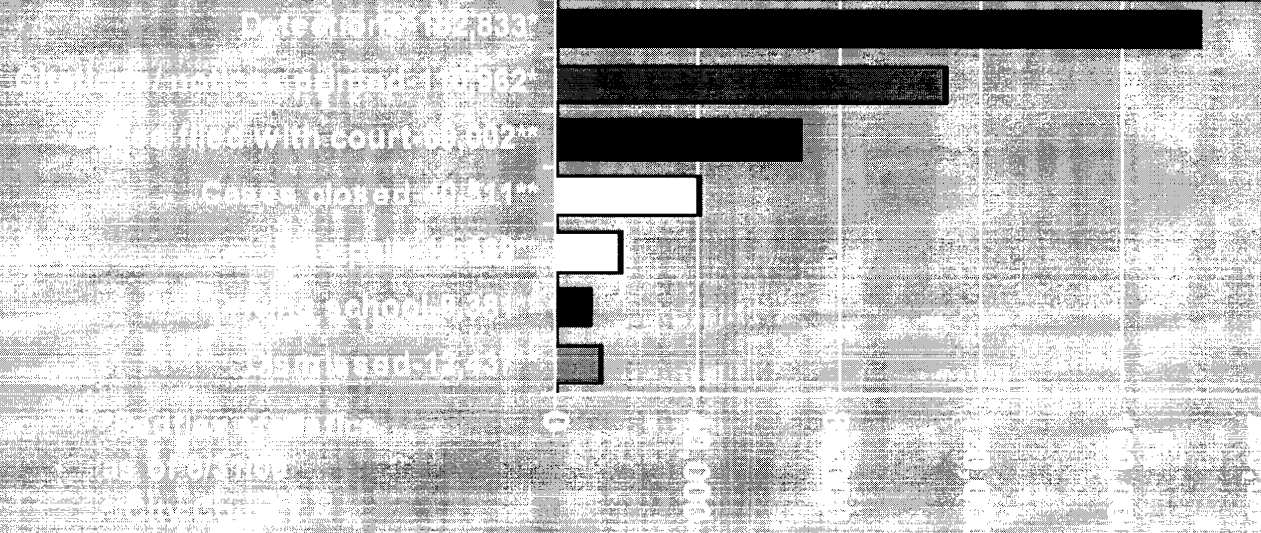
# Number of Daily Detections is Decreasing



LOOP 101 DAILY TOTAL DETECTIONS



# Status of Loop 101 cases in early Sept.



The chart displays the status of Loop 101 cases in early September. The categories and their corresponding values are as follows:

- Date of filing: 102,833
- Status of case: 10,962
- Cases closed: 10,802
- Cases dismissed: 1,111

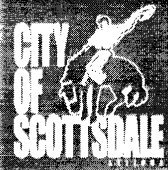


## Summary



- **Loop 101 demonstration program a response to citizen concerns about speed/safety**
- **Demonstration program to end October 23, 2006; equipment will remain in place for 90 days, with cameras "bagged"**
- **Public open house will take place after October 23<sup>rd</sup> along with public opinion poll**
- **Independent ASU researcher will complete technical evaluation in January 2007**
- **Financial Services staff will analyze revenues/costs of program**

## **Recommendation to Council**



- **Staff recommends Council authorize an extension of the existing right-of-way use permit with the Arizona Department of Transportation (ADOT) through January 23, 2007, to allow for use of the program's in-pavement sensors to collect post-demonstration program speed data.**
- **Staff seeks any additional guidance or questions from Council prior to final report.**